

## Datasheet: MCA1455G

**BATCH NUMBER 170475**

<b>Description:</b>	RAT ANTI HUMAN CARTILAGE OLIGOMERIC MATRIX PROTEIN
<b>Specificity:</b>	CARTILAGE OLIGOMERIC MATRIX PROTEIN
<b>Other names:</b>	COMP
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MA37C94 (HC484D1)
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	0.2 mg

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen	▪			
Immunohistology - Paraffin	▪			
ELISA	▪			
Immunoprecipitation	▪			
Western Blotting	▪			1/200 - 1/2000

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% sodium azide (NaN <sub>3</sub> )

<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Human cartilage derived COMP
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P49747</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">1311</a> COMP    <a href="#">Related reagents</a></p>
<b>Fusion Partners</b>	Spleen cells from immunized Wistar rats were fused with cells of the mouse NS1 myeloma cell line
<b>Specificity</b>	<p><b>Rat anti Human cartilage oligomeric matrix protein antibody, clone MA37C94</b> recognizes human cartilage oligomeric matrix protein (COMP), otherwise known as thrombospondin-5 (TSP-5). COMP is a 757 amino acid matrix glycoprotein bearing four EGF-like domains, a single TSP C-terminal domain and eight TSP type-3 repeats (Uniprot <a href="#">P49747</a>). Defects in the COMP gene can lead to the presence of pseudoachondroplasia or multiple epiphyseal dysplasia (<a href="#">Posey et al. 2014</a>).</p> <p>Rat anti Human cartilage oligomeric matrix protein, clone MA37C94 recognizes an epitope located in the central portion of the molecule and has been described as suitable for use in western blotting (<a href="#">Gagarina et al. 2008</a>) and immunohistochemistry (<a href="#">Grigoriadis et al. 2006</a>).</p>
<b>References</b>	<ol style="list-style-type: none"> <li>Milz, S. <i>et al.</i> (2005) An immunohistochemical study of the extracellular matrix of the tarsal plate in the upper eyelid in human beings. <a href="#">J Anat. 206 (1): 37-45.</a></li> <li>Jäger, M. <i>et al.</i> (2006) Ovine cord blood accommodates multipotent mesenchymal progenitor cells. <a href="#">In Vivo. 20: 205-14.</a></li> <li>Grigoriadis, A. <i>et al.</i> (2006) Establishment of the epithelial-specific transcriptome of normal and malignant human breast cells based on MPSS and array expression data. <a href="#">Breast Cancer Res. 8: R56.</a></li> <li>Milz, S. <i>et al.</i> (2007) An immunohistochemical study of the triangular fibrocartilage complex of the wrist: regional variations in cartilage phenotype. <a href="#">J Anat. 211 (1): 1-7.</a></li> <li>Gagarina, V. <i>et al.</i> (2008) Cartilage oligomeric matrix protein protects cells against death by elevating members of the IAP family of survival proteins. <a href="#">J Biol Chem 283: 648-59.</a></li> <li>Zilkens, C. <i>et al.</i> (2010) Spinning around or stagnation - what do osteoblasts and chondroblasts really like? <a href="#">Eur J Med Res. 15 (1): 35-43.</a></li> <li>Inui, S. <i>et al.</i> (2011) Identification and characterization of cartilage oligomeric matrix protein as a novel pathogenic factor in keloids. <a href="#">Am J Pathol. 179 (4): 1951-60.</a></li> <li>Nemoto, M. <i>et al.</i> (2013) Tenascin-C Expression in Equine Tendon-derived Cells During Proliferation and Migration. <a href="#">J Equine Sci. 24 (2): 17-24.</a></li> <li>Viehöfer, A.F. <i>et al.</i> (2015) The molecular composition of the extracellular matrix of the</li> </ol>

human iliolumbar ligament. [Spine J. 15 \(6\): 1325-31.](#)

10. Kobayashi, M. *et al.* (2016) Cartilage Oligomeric Matrix Protein Increases in Photodamaged Skin. [J Invest Dermatol. 136 \(6\): 1143-9.](#)

11. Gong, S.D. *et al.* (2019) Elevated plasma cartilage oligomeric matrix protein (COMP) level are associated with the progression of non-traumatic osteonecrosis of femoral head. [Clin Chim Acta. 490: 214-21.](#)

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**Storage**

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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**Guarantee**

12 months from date of despatch

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**Health And Safety Information**

Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1455G>

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**Regulatory**

For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)

[DyLight®800](#)

Rabbit Anti Rat IgG (STAR17...)

[FITC](#)

Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)

[DyLight®550](#), [DyLight®650](#), [DyLight®800](#)

Goat Anti Rat IgG (STAR69...)

[FITC](#)

Goat Anti Rat IgG (STAR73...)

[RPE](#)

Goat Anti Rat IgG (STAR72...)

[HRP](#)

Goat Anti Rat IgG (STAR131...)

[Alk. Phos.](#), [Biotin](#)

Rabbit Anti Rat IgG (STAR21...)

[HRP](#)

**Product inquiries:** [www.bio-rad-antibodies.com/technical-support](http://www.bio-rad-antibodies.com/technical-support)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](http://bio-rad-antibodies.com/datasheets)

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